

### R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

### IN THE DRAWINGS

FIG. 4 has been amended to remove the reference number 100 since FIG. 4 relates more specifically to element 100. No new matter has been added.

### OBJECTION TO THE SPECIFICATION

The objection to the specification has been obviated by appropriate amendment and should be withdrawn. Additionally, page 5 and page 7 of the specification have been amended to be consistent with the drawing change. No new matter has been added.

### SUPPORT FOR CLAIM AMENDMENTS

Support for the amendments to the claims can be found in FIG. 3, FIG. 5, on page 1, lines 11-14, and on page 4, lines 7-11, and on page 7, lines 15-19, of the specification. In particular, FIG. 5 shows a plurality of delay devices 109a-109n. Each of the delay devices 109a-109n presents one of the claimed delay times. The signal DIN\_DLY is presented to register 102, which is clocked by the signal CLK. In this example, the signal DOUT can change states (e.g., go from low-to-high or high-to-low) when the register

102 captures the state of the signal DIN\_DLY upon each rising edge transition of the signal CLK. Each of the delay times is less than a period of the signal CLK to provide a configurable setup/hold window for the data signal DIN relative to a rising transition of the clock signal CLK. No new matter has been added.

**CLAIM REJECTIONS UNDER 35 U.S.C. §102**

The rejection of claims 1, 11 and 12 under 35 U.S.C. §102(b) as being anticipated by Moloney et al. (US 5,670,904) has been obviated by appropriate and should be withdrawn.

Moloney discloses a programmable digital delay unit (Title). In contrast, the present invention provides an apparatus where a difference between said first setup/hold window and said second setup/hold window is configured in response to one or more of a plurality of delay times. Moloney is silent regarding a user configurable delay of a setup/hold window relative to a transition of a clock signal, as presently claimed.

In particular, one skilled in the art would recognize that the unit delay elements of Moloney cannot provide a configurable setup/hold window relative to a transition of a clock signal, as presently claimed. For example, the unit delay elements 11 in FIG. 2 of Moloney are flip-flops that provide full cycle delays. A full cycle delay does not disclose or suggest a

plurality of delay times each less than a period of a clock signal, as presently claimed.

Furthermore, FIGS. 3-7 of Moloney disclose unit delay elements 28 that are also flip-flops (see for example: col. 2, line 59; col. 3, lines 35-45; col. 3, lines 61-66). Moloney only discloses flip-flop type delay elements for full cycle delays (i.e., from clock pulse to clock pulse of a clock signal). Furthermore, Moloney is silent regarding any other type of delay element. The full cycle delay elements of Moloney cannot be used to provide delay times less than a period of a clock cycle, as presently claimed. Even if the delay circuit of Moloney was used to "shift" data in time by one or more full clock cycles, one skilled in the art would understand that full clock cycle shifting does nothing to change or configure a delay of a setup/hold window relative to a transition of the clock signal, as presently claimed. Clearly, Moloney does not disclose or suggest delay times less than a period of a clock signal, as presently claimed. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

**CLAIM REJECTIONS UNDER 35 U.S.C. §103**

The rejection of claims 2, 3, 13 and 14 under 35 U.S.C. §103 as being unpatentable over Moloney in view of Brown (US 6,310,506) has been obviated by appropriate amendment and should be

withdrawn. Claims 2 and 3 each depend, either directly or indirectly, on claim 1, which is now believed to be allowable. Claim 13 depends on claim 12, which is also now believed to be allowable. Claim 14 has been cancelled.

The rejection of claims 4-10 and 15-20 under 35 U.S.C. §103 as being unpatentable over Moloney in view of Brown has been obviated by appropriate amendment and should be withdrawn. Claims 4-10 each depend, either directly or indirectly, on claim 1, which is now believed to be allowable. Claims 15-20 each depend, either directly or indirectly, on claim 12, which is also now believed to be allowable.

As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

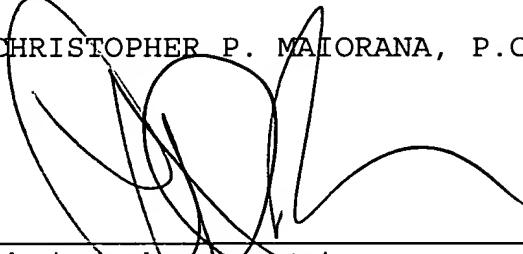
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office  
Account No. 50-0541.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.



---

Christopher P. Maiorana  
Registration No. 42,829  
24025 Greater Mack, Suite 200  
St. Clair Shores, MI 48080  
(586) 498-0670

Dated: June 25, 2003

Docket No.: 0325.00355